

Appl. No. 10/604,288
Amdt. dated August 14, 2006
Reply to Office action of May 16, 2006

REMARKS/ARGUMENTS

Rejection of Claims 1-9 under 35 U.S.C 103(a) as being unpatentable over Applicant's acknowledged Prior Art in view of Enjeti et al. (US 6005362).

5 Applicant asserts that Enjeti et al do not teach a control circuit for preventing equipment from being damaged by voltage sag as per the limitation disclosed in claim 1 of the claimed invention. Claim 1 of the claimed invention recites a control circuit having a turn-on button, a magnetic switch having a winding, a normal open connection, at least a main connection, and a modular circuit having a rectifier and an electricity
10 storing device. Preferably, the rectifier is utilized to provide a direct current to the control circuit, and the electricity storing device is charged with the direct current while the direct current is conducted to the control circuit by the turn-on button and discharged to supply current to the winding while a voltage sag takes place for preventing the disconnection between the normal open connection and the main connection.

15 In contrast to the claimed invention, the system disclosed by Enjeti et al is an adjustable speed drive specifically utilized for power lines and conditions requiring variable motor speeds, in which the system also provides a voltage sag ride-through capability. Nevertheless, as the adjustable speed drive is applied to power lines, the
20 power output of the drive will be approximately hundred or thousand folds more than the power output of the modular circuit of the claimed invention. Hence, applicant asserts that it would be impossible to apply the system taught by Enjeti et al to the control circuit of the claimed invention.

25 Inspection of Fig. 5 of Enjeti et al will reveal that the three-phase electric utility 12 resembles the power source 12 of the claimed invention, the induction motor 20 resembles the equipment 22 of the claimed invention, and the three-phase diode rectifier

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14, the ride-through topology for voltage sags 50, the DC-link voltage 16, and the PWM inverter 18 all contribute to the power line section between the main connection 17 and the power source 12 of the claimed invention.

5 The characteristics of the claimed invention however, lies within the control mechanism between the main connection 17 and the normal open connection 16 of the circuit 30, such that when a voltage sag of the main power source 12 takes places, the electricity storing device 36 will be discharged to provide a direct current to the circuit 30, thereby preventing a disconnection between the normal open connection 16 and the main
10 connection 17. Since the mechanism and applicable target and location of the adjustable speed drive is significantly different from the control circuit of the claimed invention, applicant asserts that the adjustable speed drive disclosed by Enjeti et al does not provide a means for preventing voltage sag as per the limitation disclosed in claim 1 of the claimed invention.

15 Despite the fact that the prior art of the claimed invention teaches a control circuit having a turn-on button, a magnetic switch having a winding, a normal open connection, and a main connection, the prior art does not teach a modular circuit having a rectifier and an electricity storing device. Since the applicable field and the method for preventing
20 voltage sag of the circuit taught by the prior art of the claimed invention are significantly different from the adjustable speed drive of Enjeti et al, those skilled in the art would find it impossible to combine the references in the manner suggested. Reconsideration of claim 1 is therefore politely requested. As claims 2-5 are dependent upon claim 1, applicant asserts that if claim 1 is found allowable, claims 2-5 should additionally be
25 found allowable. Reconsideration of the claims 2-5 is politely requested.

Additionally, claim 6 of the claimed invention recites a control circuit having a turn-on button, a magnetic switch having a winding, a normal open connection and at

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least a main connection, and a modular circuit having a rectifier and an electricity storing device. Preferably, when an alternating current of a main power source is conducted to the control circuit by the turn-on button, the electricity storing device is charged with a direct current rectified from the rectifier, and is discharged to supply current to the
5 windings while a voltage sag occurs for preventing the disconnection between the normal open connection and the main connection.

Similar to the arguments made for claim 1, applicant asserts that Enjeti et al do not teach a control circuit for preventing equipment from being damaged by voltage sag as
10 per the limitation disclosed in claim 6 of the claimed invention. Specifically, the system disclosed by Enjeti et al is an adjustable speed drive utilized for power lines and conditions requiring adjustable motor speeds, in which the system also provides a voltage sag ride-through capability. As the adjustable speed drive is applied to power lines, the power output of the drive will be approximately hundred or thousand folds more than the
15 power output of the modular circuit of the claimed invention. Hence, applicant asserts that it would be impossible to apply the system taught by Enjeti et al to the control circuit of the claimed invention.

Additionally, the characteristics of the claimed invention lies within the control
20 mechanisms between the main connection 17 and the normal open connection 16 of the circuit 30, such that when a voltage sag of the main power source 12 takes places, the electricity storing device 36 will be discharged to provide a direct current to the circuit 30, thereby preventing a disconnection between the normal open connection 16 and the main connection 17. The adjustable speed drive of Enjeti et al however, is specifically
25 applied to the power line section between the main connection 17 and the power source 12 of the claimed invention.

Since the mechanism and applicable target and location of the adjustable speed drive

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is significantly different from the control circuit of the claimed invention, applicant asserts that the adjustable speed drive disclosed by Enjeti et al does not provide a means for preventing voltage sag as per the limitation disclosed in claim 6 of the claimed invention.

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Despite the fact that the prior art of the claimed invention teaches a control circuit having a turn-on button, a magnetic switch having a winding, a normal open connection, and a main connection, the prior art does not teach a modular circuit having a rectifier and an electricity storing device. Since the applicable field and the method for preventing
10 voltage sag of the circuit taught by the prior art of the claimed invention are significantly different from the adjustable speed drive of Enjeti et al, those skilled in the art would find it impossible to combine the references in the manner suggested. Reconsideration of claim 6 is therefore politely requested. As claims 7-9 are dependent upon claim 6, applicant asserts that if claim 6 is found allowable, claims 7-9 should additionally be
15 found allowable. Reconsideration of the claims 7-9 is politely requested.

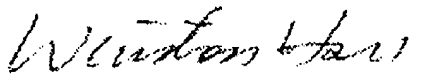
Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

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Sincerely yours,



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